

BLOCK F & BLOCK A OFF-SITE SEWER

📍 Honolulu, HI

BACKGROUND

The development of nearby residential and commercial properties in Honolulu, HI, required upgrading 500 feet of an existing sanitary sewer line. The sewer line was located below the water table in soft, lagoonal deposits prone to settlement, posing significant challenges for excavation and construction.

CHALLENGE

Since the existing sewer line was constructed below the water table in soft, lagoonal deposits, it was unstable and prone to settling. To properly install the new sewer line, two main solutions were needed: cutting off ground water infiltration and structural support. The excavation reached about 26 feet deep, so a strong foundation was required to support the sewer line and prevent further settlement.

SOLUTION

Schnabel was contracted by Hawaiian Dredging Construction Company to design and install jet grout columns. The scope of work included:

- **450 jet grout side and cradle columns** (19 feet deep) to create watertight sidewalls and a 5-foot thick structural cradle.
- **75 structural jet grout support columns** (26 feet deep) to extend to the coral formation below.
- **35 additional 26-foot columns** around manholes and utilities for sealing.

RESULTS

Schnabel completed the jet grouting work on schedule, creating a stable and watertight environment for the sewer line upgrade.



AT A GLANCE

WORK PERFORMED BY SCHNABEL

- 450 jet grout side and cradle columns.
- 75 structural jet grout support columns.
- 35 additional 26-foot jet grout support columns.

BENEFITS FOR CLIENT

- The jet grouting work addressed groundwater issues and supported the development of residential and commercial properties.



KEVIN CARGILL, PE
Schnabel President

“With over 60 years of experience, Schnabel is committed to being the safest and most efficient geotechnical company, providing effective and timely solutions for our clients.”

